

1 **In the Claims**

2 Claims 1-42 remain in the application and are listed as follows:

3 1. (Original) A method of providing a hinted font comprising:

4 selecting a first TrueType font that has been hinted with hints that define  
5 constraints between control points associated with individual characters of the  
6 font;

7 identifying individual characters of a second TrueType font that correspond  
8 to individual characters of the first TrueType font, the second TrueType font being  
9 different from the first TrueType font, individual characters of the second  
10 TrueType font being unhinted; and

11 transferring hints from characters of the first TrueType font to individual  
12 corresponding characters of the second TrueType font.

13  
14 2. (Original) The method of claim 1, wherein the first TrueType font  
15 comprises a font that has control-point level hints attached to it and said  
16 transferring of the hints comprises transferring the control-point level hints from  
17 characters of the first TrueType font to control-point level hints in characters of  
18 the second TrueType font.

19  
20 3. (Original) The method of claim 2, wherein at least one control point  
21 of the first TrueType font has been programmatically relocated to lie on top of  
22 another control point of the first TrueType font.

1           4.     (Original) The method of claim 1, wherein said selecting comprises  
2 selecting the first TrueType font from among a number of different fully hinted  
3 TrueType fonts.

4  
5           5.     (Original) The method of claim 1, wherein said selecting comprises  
6 automatically selecting the first TrueType font from among a number of different  
7 fully hinted TrueType fonts that are resident in a library.

8  
9           6.     (Original) The method of claim 1, wherein said selecting comprises  
10 further selecting a TrueType font that is different from the first and second  
11 TrueType fonts, and transferring hints from characters of the selected different  
12 TrueType font to individual characters of the second TrueType font.

13  
14           7.     (Original) The method of claim 1, wherein said identifying  
15 comprises matching one or more contours on a character of the first TrueType font  
16 with one or more contours of a character of the second TrueType font.

17  
18           8.     (Original) The method of claim 7, further comprising after said  
19 matching, pairing individual points associated with a contour of the character of  
20 the first TrueType font with individual respective points associated with a  
21 corresponding contour of the character of the second TrueType font.

22  
23           9.     (Original) The method of claim 8, wherein said transferring  
24 comprises transferring hints that are defined in terms of the individual points  
25 associated with the contour of the character of the first TrueType font.

1  
2 10. (Original) The method of claim 8, wherein said transferring  
3 comprises transferring hints that are defined in terms of individual points  
4 associated with the contour of the character of the first TrueType font by changing  
5 the definition of the hints to refer to individual points associated with the contour  
6 of the character of the second TrueType font.

7  
8 11. (Original) The method of claim 8, wherein said pairing of the  
9 individual points defines one set of multiple point pairs, and further comprising  
10 defining multiple sets of point pairs, each set of point pairs comprising different  
11 pairings of points.

12  
13 12. (Original) The method of claim 11 further comprising:  
14 calculating a score for each set of point pairs;  
15 selecting a set of point pairs based upon the calculated score;  
16 said transferring comprising using the selected set of point pairs as a basis  
17 for transferring the hints.

18  
19 13. (Original) The method of claim 12, wherein said calculating  
20 comprises:

21 for each individual pair of points, calculating an individual local score; and  
22 summing the individual local scores for all of the individual pairs of points  
23 to provide an overall score for each set of point pairs;

24 said selecting of the set of point pairs comprising selecting the set with the  
25 best overall score.

1  
2 14. (Original) One or more computer-readable media having computer-  
3 readable instructions thereon which, when executed by a computer, implement the  
4 method of claim 1.

5  
6 15. (Original) The method of claim 1, wherein said transferring  
7 comprises transferring one or more conditionally-specified hints.

8  
9 16. (Original) The method of claim 1 further comprising discarding a  
10 hint where it appears inappropriate for a character of the second TrueType font.

11  
12 17. (Original) The method of claim 1 further comprising defining at  
13 least one conditionally specified hint associated with a character of the first  
14 TrueType font, and transferring said conditionally specified hint if a condition  
15 associated with the conditionally specified hint is met by a corresponding  
16 character of the second TrueType font.

17  
18 18. (Original) A method of providing a hinted TrueType font  
19 comprising:

20 providing a source character from a fully hinted TrueType font from which  
21 hints are to be transferred, the source character having multiple control points that  
22 are constrained by the hints;

23 providing a target character from a different TrueType font to which hints  
24 from the source character are to be transferred, the target character having control  
25 points that will be constrained by the transferred hints; and

1 transferring hints associated with the source character and that refer to  
2 control points on the source character to hints associated with the target character  
3 and that refer to control points on the target character.

4  
5 19. (Original) The method of claim 18, wherein said transferring  
6 comprises modifying control point references contained in the hints.

7  
8 20. (Original) The method of claim 18, wherein said transferring  
9 comprises modifying one or more values contained in a table that is referenced by  
10 at least one hint.

11  
12 21. (Original) The method of claim 18, wherein said transferring  
13 comprises pairing individual control points associated with the source character  
14 with individual control points associated with the target character to define a set of  
15 multiple pairs of control points, and, for each pair of control points, calculating a  
16 score that characterizes the pair of control points.

17  
18 22. (Original) The method of claim 21, wherein the score characterizes  
19 the desirability of a match between the control points.

20  
21 23. (Original) The method of claim 22, wherein the desirability of the  
22 match is a function of incoming/outgoing directions that are associated with each  
23 control point.

1           24.   (Original) The method of claim 22, wherein the desirability of the  
2 match is a function of a control point constituting a local minimum or maximum.

3  
4           25.   (Original) The method of claim 22, wherein the desirability of the  
5 match is a function of incoming/outgoing lines associated with the control points.

6  
7           26.   (Original) The method of claim 22, wherein the desirability of the  
8 match considers whether each control point of a pair falls into one of a plurality of  
9 common bands that are defined for each character.

10  
11          27.   (Original) The method of claim 21, wherein said transferring  
12 comprises:

13           defining multiple sets of multiple pairs of control points;

14           calculating a score for each pair of control points for each of the multiple  
15 sets,

16           summing individual control point pair scores for each set of multiple pairs  
17 of control points to provide an overall score;

18           selecting a set of multiple pairs of control points based upon the overall  
19 score; and

20           transferring the hints using the selected set of multiple pairs of control  
21 points as a basis for said transferring.

22  
23          28.   (Original) The method of claim 27, wherein the control points that  
24 comprise the multiple pairs comprise control points that are located on a contour  
25 associated with the individual character.

1  
2 29. (Original) The method of claim 28, wherein the defining of the  
3 multiple sets of multiple pairs comprises, for each set:

4 selecting a control point on the source character as a starting point;  
5 selecting a control point on the target character as a starting point;  
6 pairing the two selected points;  
7 selecting a different control point on the source character and pairing it with  
8 a selected control point on the target character and continuing to select and pair  
9 control points on the source character until there are no unpaired control points on  
10 the source character.

11  
12 30. (Original) The method of claim 29, wherein each set of the multiple  
13 sets of multiples pairs comprises different pairings of selected points.

14  
15 31. (Original) One or more computer-readable media having computer-  
16 readable instructions thereon which, when executed by a computer, implement the  
17 method of claim 18.

18  
19 32. (Original) A method of providing a hinted font comprising:  
20 defining hints for a glyph of a first font, the hints being defined by one or  
21 more statements that contain multiple values that define constraints for the glyph,  
22 at least one of the values referencing a table entry that corresponds to a table value  
23 that is used to constrain the glyph;  
24 establishing an association between the glyph of the first font and a glyph  
25 of a second font, the second font being different from the first font; and

1 translating the one or more statements so that the one or more statements  
2 now pertain to and define constraints for the glyph of the second font.

3  
4 33. (Original) The method of claim 32, wherein the first and second  
5 fonts comprise TrueType fonts.

6  
7 34. (Original) The method of claim 32, wherein said translating  
8 comprises manipulating at least some of the values of the one or more statements.

9  
10 35. (Original) The method of claim 32, wherein some of the values  
11 pertain to specific points on the glyph of the first font, and:

12 said establishing comprises establishing an association between the specific  
13 points on the glyph of the first font and specific points on the glyph of the second  
14 font; and

15 said translating comprises changing at least some of the values of the  
16 individual statements to correspond to the specific points on the glyph of the  
17 second font.

18  
19 36. (Original) The method of claim 35, wherein said changing of at least  
20 some values comprises changing a table value.

21  
22 37. (Original) The method of claim 36, wherein said changing of the  
23 table value comprises:

24

25



1 determining a plurality of natural distances in the glyph of the second font,  
2 the natural distances being defined relative to specific points in the glyph of the  
3 second font that are to be constrained by the table value; and  
4 calculating a new table value for the table entry as a function of the natural  
5 distances.

6  
7 38. (Original) An automated hinting system programmed with  
8 instructions which execute to implement the method of claim 32.

9  
10 39. (Original) An automated hinting system comprising:  
11 a computer-readable medium;  
12 one or more processors;  
13 computer-readable instructions resident in the computer-readable medium  
14 which, when executed by the one or more processors, cause the automated hinting  
15 system to:

16 select a first TrueType font that has been hinted with hints that define  
17 constraints between control points on individual characters of the font;

18 identify individual characters of a second TrueType font that correspond to  
19 individual characters of the first TrueType font, the second TrueType font being  
20 different from the first TrueType font, individual characters of the second  
21 TrueType font being unhinted; and

22 transfer hints from characters of the first TrueType font to individual  
23 corresponding characters of the second TrueType font.  
24  
25

1           40.   (Original) The automated hinting system of claim 39, wherein the  
2 automated hinting system identifies the individual characters by matching one or  
3 more contours on a character of the first TrueType font with one or more contours  
4 of a character of the second TrueType font.

5  
6           41.   (Original) The automated hinting system of claim 39, wherein the  
7 automated hinting system transfers the hints by pairing individual control points  
8 associated with characters and transferring hints that are defined in terms of the  
9 individual control points.

10  
11           42.   (Original) The automated hinting system of claim 39, wherein the  
12 automated hinting system transfers the hints by pairing individual control points  
13 associated with characters and transferring hints that are defined in terms of the  
14 individual control points, the transferring comprising changing a hint definition to  
15 refer to one or more control points associated with the character to which the hint  
16 is transferred.